

A, B. Minimal invasion of peritracheal tissue. US image shows nodule abutting trachea at obtuse angle **(A)**. CT image shows no intraluminal tumor invasion (**B**, arrow). Surgery: extrathyroidal tumor invasion of tracheal adventitia (pT4a). Diagnosis: papillary carcinoma. **C, D.** Intraluminal tumor invasion of trachea. US image shows large nodule encircling trachea and suspicious gross extrathyroidal extension (**C**, arrows). CT image reveals infiltrative large tumor with intraluminal involvement of trachea (**D**, arrow). Surgery: extensive intraluminal tracheal invasion (pT4a).

Diagnosis: papillary carcinoma. US = ultrasonography